

**LEGISLATIVE RESEARCH COMMISSION (LRC)
ENERGY POLICY ISSUES**

COMMITTEE MEETING

February 15, 2012

Questions and Answers

Joe Rudek, Senior Scientist, Environmental Defense Fund, spoke on environmental and natural resource issues related to the exploration for and extraction of shale gas in North Carolina

Question from Senator Rucho: You talk about trying to determine the impact of horizontal drilling and fracking on North Carolina, specifically the geology. How do you recommend we do that without ever allowing drilling to occur and hydro fracking in an area and, more importantly, under some very stringent conditions to measure what your question is based on?

Mr. Rudek: The geological structures in North Carolina have shale that actually breaks out the surface and outcrops at times, so the fact that in many places the shale gas is a mile down is not an issue here because we have shallow wells; we have fracture zones where groundwater moves so can fracking fluids. I think that instead of having actual gas production, there needs to be an evaluation and research done by geological entities who can use many techniques to look at the subsurface geology in more detail and make an assessment of whether or not fracking would have an impact that was unexpected given that the major faults are there, that there could be seismic activity, and whether it might migrate into groundwater. All that can be done without having natural gas extraction occurring and should happen before natural gas extraction occurs. Once you start putting the well in place and start having the fluids go down there, then the horse is out of the barn, so to speak.

Senator Rucho: When on location in a test manner, are you saying you want to evaluate to see what the impact is of that procedure? In normal science you have to test it to see what the result is, and I assume that you aren't even willing to consider testing to determine whether it can be done safely and efficiently.

Mr. Rudek: I think it needs to be tested, but whether you have a natural gas extraction company testing that by putting a well in, as opposed to having geological agencies of either the state or universities do an analysis is really the question. I think you will get much more information if you have universities and the state geological services looking at it and making determinations about how that subsurface geology will work.